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MILWAUKEE COUNTY EMS PRACTICAL SKILL

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USE OF CENTRAL PROPERTY INDWELLING INTRAVENOUS LINES

Purpose:		Indications:	
To utilize an existing central line for administration		May be used in immediate life threatening situations	
of intravenous fluids and medications		when another site cannot be accessed	
Advantages:	Disadvantages:	Complications:	Contraindications:
Readily available	None	Air embolus	Available peripheral
IV access into central circulation		Clot formation at end of catheter	IV site
Route for administration of		Heparin overdose if not	Inability to withdraw
medication and fluids		removed	fluid from catheter
		Irritation of heart end of catheter	Lack of external
		Infection/sepsis	catheter site

Determine patient is critical with no peripheral IV access

Assemble IV bag, administration set and extension set using sterile technique

If clamp is present on tube, leave in place until IV is connected

Cleanse cap on indwelling IV line and distal end of catheter with alcohol

Remove cap on catheter and attach 20 cc sterile syringe, taking care not to contaminate end of catheter or top of syringe

Withdraw 15 - 20 cc of fluid and blood from catheter to assure removal of any heparin solution present as a capping solution

Do not forcefully flush catheter; if it does not run freely; attempt to withdraw clot into syringe

Detach syringe and attach sterile end of IV tubing

Adjust IV flow rate appropriately

Check all connections for security

Carefully wipe injection port with alcohol before injecting any substance into line

Tape a loop of tubing to prevent accidental disconnection during transport

NOTES:

- A dialysis shunt may ONLY be used when the patient is in cardiorespiratory arrest and no peripheral IV site is available. Consider enlisting the expertise of the dialysis nurse, if present.
- Carefully monitor the flow rate of the IV line, as most indwelling catheters have large lumen.
- Air emboli may be drawn in when the patient inhales while the catheter tip is open to the atmosphere.
- Patient may receive a heparin overdose if the solution is not removed prior to starting IV fluid.